will be used in the transmission of the first spread message signal.

These principals may be applied to particular spread spectrum communication systems such as CDMA spread spectrum radio telephone cellular communication systems and the like. In such a cellular communication system, one communication site is a base (or central) communication site and the other communication site is a mobile (or subscriber) communication site. In addition, a cellular communication system typically has several base and mobile communication sites. The base communication sites typically communicate with particular mobile sites in their geographic proximity as well as other nearby base communication sites. Because base communication sites can communicate with one another, additional features may be incorporated into the cellular communication system related to synchronization of signals transmitted over a radio communication channel. For example, when a particular mobile communication site transmits a spread message signal over the radio communication channel, more than one base communication site may receive the spread message signal. The cellular communication system can be configured in several ways to handle this situation. In one configuration, each of the base communication sites which receives the spread message signal transmits a reply spread message signal used in synchronization to the mobile communication site which is coded so that the mobile communication site can determine which reply spread message signal was transmitted by each of the base communication sites. The mobile communication site then determines which base communication site it wants to communicate with on subsequent communications and transmits to the other base communication sites a spread message signal telling them to cease transmitting to it. In an alternative configuration, each of the base communication sites which receive the transmission from the mobile communication site communicate with one another and decide which of them is going to transmit a reply message signal to the mobile communication site.

Although the invention has been described and illustrated with a certain degree of particularity, it is understood that the present disclosure of embodiments has been made by way of example only and that numerous changes in the arrangement and combination of parts as well as steps may be resorted to by those skilled in the art without departing from the spirit and scope of the invention as claimed. For example, individual antennae **106**, **110**, and **116** may be a single antenna with a switch to switch between the various inputs. Similarly, the transceiver **104** and transmitter **114** functions may be performed by a single device. These and other permutations are possible without departing from the spirit and scope of the invention as claimed.

What is claimed is:

1. A spread spectrum communication site having signal synchronizing capability, comprising:

(a) receiving means for receiving a spread message signal from over a radio communication channel; and

(b) synchronizing means for synchronizing the received spread message signal with an estimate of the received spread message signal, the synchronizing means comprising:

(i) means for generating the estimated received spread message signal as a function of a predetermined message signal and a predetermined spreading code; and

(ii) means for synchronizing the received and the estimated received spread message signals by using a sliding correlator to incrementally increase the phase shift between the received and the estimated received spread message signal until the received and the estimated received spread messge signals are synchronized, the means for synchronizing limiting the increase of the phase shift between the received and the estimated received spread message signal to a predetermined maximum phase shift magnitude which is derived from known operating environment parameters of the spread spectrum communication site.

2. The spread spectrum communication site of claim **1** wherein the received spread message signal was generated prior to transmission over the communication channel with a spreading code which is substantially similar to the predetermined spreading code used to generate the estimated received spread message signal.

3. The spread spectrum communication site of claim **1** wherein the received spread message signal was generated prior to transmission over the communication channel with a message signal which is substantially similar to the predetermined message signal used to generate the estimated received spread message signal.

4. A spread spectrum communication site having signal synchronizing capability, comprising:

(a) receiving means for receiving a first spread message signal derived from a first message signal and a first spreading code from over a radio communication channel;

(b) determining means for determining the first spreading code from which the first spread message signal was derived; and

(c) transmitting means for enabling synchronization of transmitted spread message signals with another communication site, the transmitting means comprising:

(i) means for generating a second spread message signal as a function of a second message signal and a second spreading code associated with the determined first spreading code; and

(ii) means for transmitting the second spread message signal over the radio communication channel to another communication site.

5. The spread spectrum signal synchronizing system of claim **4** wherein the first spreading code is substantially similar to the second spreading code.

6. The spread spectrum signal synchronizing system of claim **4** wherein the second spreading code is known to the communication site prior to the transmission of the first spread message signal over the radio communication channel.

7. The spread spectrum signal synchronizing system of claim **4** wherein the first mesage signal is substantially similar to the second message signal.

8. The spread spectrum signal synchronizing system of claim **4** wherein the second message signal is known to the communication site prior to the transmission of the first spread message signal over the radio communication channel.

9. A spread spectrum signal synchronizing system, comprising:

(a) first communication site, comprising: